

the right being entirely bright green, while that on the left has a large creamy-whitish patch. In connection with this it must be explained that when at rest the latter is always folded uppermost, and is therefore exceedingly beneficia¹ to the insect, assisting it to elude detection by predatory foes, the whitish patch in contrast with the bright green portion having the appearance of a green leaf lighted by the sun's rays filtering through the foliage.

The specimen from which the above description was written, and which therefore forms the type of the species, was presented to the Museum by Miss Ansell, of Paddington; in addition to this, we have in our cabinet collection a specimen taken by Mr. A. J. North, of the Australian Museum, at Ashfield, in 1895.

CATALOGUE OF THE DESCRIBED PHASMIDÆ OF AUSTRALIA.

By W. J. RAINBOW, Entomologist.

Family PHASMIDÆ.

Genus Bacillus, Latr.

- B. brunneus*, G. R. Gray, Ent. Aust., pl. vii., fig. 3; Syn. Phasm., p. 21.
 Burm., Handb. d. Ent. ii., 2, p. 562.
 Westwood, Cat. of Orthop. Insects of the British Museum, Pt. 1, Phasmidæ, p. 12. London, 1859.
Hab. Perth, W. Australia.
- B. australis*, Charpentier, Orth. Descr. ♂ et ♀., pl. lvii.
 Westwood, *loc. cit.*, pp. 12 and 179.
Hab. Australia.
- B. dolomedes*, Westwood, *loc. cit.*, p. 13, pl. v., fig. 4.
Hab. Australia.
- B. peristhenes*, Westwood, *loc. cit.*, p. 13, pl. vii., figs. 1, 1a., ♂, pl. viii., figs. 2, 2a., ♀.
Hab. Australia.
- B. peridromes*, Westwood, *loc. cit.*, pp. 13-14, pl. viii., figs. 2b., 2c.
Hab. Australia.

Genus Pachymorpha, Gray.

- P. squalida*, ♀ var., *loc. cit.*, p. 15, pl. xxii., figs. 4, 4a., 4b.
Bacillus squalidus, Hope MS.
 G. R. Gray, Ent. Aust., p. 3, fig. 2; Syn. Phasm., p. 21
 (*Pachymorpha squalida*).
 Seville, H. n. Orth., p. 260.
 Burm., Handb. d. Ent., ii., 2, p. 562.
Hab. Australia.

- P. (?) simplicipes*, Serville, H. n. Orth., p. 259.
Westwood, *loc. cit.*, p. 15.
Hab. Australia.

Genus Bacteria, Latr.

- B. eutrachelia*, Westwood, *loc. cit.*, pp. 32-33, pl. xxiv., figs. 11, 11a.
Hab. Perth, W. Australia.

- B. cenosa*, ♀, Hope MSS.

G. R. Gray, Ent. Austr., pl. ii., fig. 2; Syn. Phasm., p. 18.

B. tenuis, ♂, Hope MSS.

Larva juvenis, *B. fragilis*, Hope MSS.

G. R. Gray, Ent. Austr., pl. vii., fig. 1; Syn. Phasm., p. 18.

Hab. Australia.

- B. frenchi*, Wood-Mason, Ann. Mag. Nat. Hist. (4) xx., p. 74.

Hab. Australia.

Genus Lonchodes, G. R. Gray.

- L. nigropunctatus*, Kirby, Trans. Lin. Soc. Lond., (2) vi., 6, pp. 453-454.

Hab. Lizard Island, Queensland.

Genus Bactridium, Saussure.

- B. coulouiamum*, Saussure, Rev. et Mag. de Zool., 1868, p. 66.

Hab. Australia (Chili?)

Genus Hyrtacus, Stål.

- H. tuberculatus*, Stål, Recensio Orthopterorum, p. 67.

Hab. Australia.

Genus Acanthoderus, G. R. Gray.

- A. spinosus*, G. R. Gray.

Westwood, *loc. cit.*, p. 48.

A. spinosus, G. R. Gray, Syn. Phasm., p. 14.

Phasma (Bacteria) spinosum, G. R. Gray, in Trans. Ent. Soc., i., 1836, p. 46 (nec. *Bacteria spinosa*, G. R. Gray, Syn. Phasm., p. 43.)

Hab. Perth, W. Australia.

Genus Eurycantha, Boisd.

- E. australis*, Montrouzier.

Westwood, *loc. cit.*, p. 65, pl. i., figs. 1, 1a, 1b. ♂, figs. 2, 2a. ♀
Karabidion australe, Mont., Ann. Sci. de Lyon, (2) vii., 1,
p. 86.

Hab. Lord Howe Island.

*Genus Anophelepis, Westw.**A. telesphorus, Gray.*Westwood, *loc. cit.*, pp. 69-70, pl. viii., fig. 3 ♂, figs. 7, 7a. ♀*Hab.* Perth, W. Australia.*A. periphanes, Westwood, loc. cit.*, p. 70, pl. viii., figs. 2, 2a.*Hab.* Australia.*A. rhipheus, Westwood, loc. cit.*, pp. 70-71, pl. viii., figs. 10, 10a., 10b.*Hab.* Perth, W. Australia.*Genus Phibalosoma, G. R. Gray.**P. caprella, Westwood, loc. cit.*, pp. 76-77, pl. xxi., figs. 3, 3a.*Hab.* Australia ?*Genus Lopaphus, Westw.**L. gorgus, Westwood, loc. cit.*, p. 102, pl. xi., figs. 4, 4a.*Hab.* Richmond River, N.S.W.*Genus Xeroderus, G. R. Gray.**X. kirbii, G. R. Gray, Syn. Phasm.*, p. 32.Burm., *Handb. d. Ent.*, ii., 2, p. 582.Westwood, *loc. cit.*, pp. 102-103, pl. xxxi., figs. 6, 6a. ♂, figs. 7, 7a. ♀.*Hab.* Australia.*Genus Cyphocrania, Serville.**C. goliath, G. R. Gray.*Westwood, *loc. cit.*, pp. 107-108.*Diura goliath, G. R. Gray, Trans. Ent. Soc.*, i., 1836, p. 45 ;*Syn. Phasm.*, p. 39 (*Acrophylla G.*)*Phasma (Cyphocrania) Goliath, Audouin et Brullé, Hist. Nat. Ins.*, ix., p. 105, pl. vii.De Haan, *Orth. Orient*, p. 128.*Hab.* Java, Timor, New Guinea, Moreton Bay, and Northern parts of Australia.*Var. fœm. major, Cyphocrania versiruba, Serville, Orth.*, p. 235.*C. herculeana, Charpentier, Orth. Descr.*, pl. i.Westwood, *loc. cit.*, p. 107.*Hab.* Australia.*Var. fœm. minor, Cyphocrania versifasciata, Serville, H. N. Orth.*, p. 235.Westwood, *loc. cit.*, pp. 107-108.*Hab.* ?

C. enceladus, G. R. Gray.Westwood, *loc. cit.*, p. 108.*Acrophylla enceladus*, G. R. Gray, Syn. Phasm., p. 39.*Hab.* Australia.*C. pasimachus*, Westwood, *loc. cit.*, pp. 109-110, pl. ix., figs. 5, 5a., 5b.*Hab.* Australia.*Genus* *Lopaphus*, Westwood.*L. macrotegmus*, Tepper, Trans. Roy. Soc. S. Austr., vol. ix., p. 112, pl. vi.*Hab.* Mount Lofty Ranges, S. Australia.*Genus* *Ophicrania*, Kaup.*O. striaticollis*, Kaup, B.E.Z., p. 38.*Hab.* Australia.*Genus* *Acrophylla*, G. R. Gray.*A. titan*, Macleay.Westwood, *loc. cit.*, p. 114.*Pasma titan*, Macleay, in King's Survey of Australia, ii., p. 454.G. R. Gray, Ent. Aust., i., pl. 4 ♀ (*Diura titan*); *ejud.*
Syn. Phasm. p. 39 (*Acrophylla titan*).

Servielle, H. N. Orth., p. 231.

Burm., Handb. d. Ent., ii., 2, 579 (*Cyphocrania titan*).

Laporte, H. N. Inst., v., pl. iv., ♂.

Pasma (Cyphocrania) titan, De Haan, Orth. Orient., p. 129.*Hab.* Australia.*A. briareus*, G. R. Gray.Westwood, *loc. cit.*, p. 114.*Diura briareus*, G. R. Gray, Trans. Ent. Soc., vol. i., 1836,
p. 45; Syn. Phasm., p. 40.*Hab.* Australia.*A. chronus*, G. R. Gray.Westwood, *loc. cit.*, p. 114.*Ctenomorpha marginipennis*, ♂, G. R. Gray, Ent. Austr., i.,
pl. i., fig. 2; Syn. Phasm., p. 41.*Pasma (Cyphocrania) marginipennis*, De Haan, Orthop.
Orient., p. 131.*Diura chronus*, ♀, G. R. Gray, Ent. of Austr., i., pl. v., fig.
2; Syn. Phasm., p. 39 (*Acrophylla c.*)

Servielle, H. N. Orth., p. 232.

Burm., Handb. d. Ent., ii., 2, p. 580 (*Cyphocrania c.*)*Hab.* Australia.

A. japetus, G. R. Gray.Westwood, *loc. cit.*, pp. 114-115.*Ctenomorpha spinicollis*, ♂, G. R. Gray, Ent. Austr., i., pl. i., fig. 1; Syn. Phasm., p. 41.*Phasma (Cyphocrania) spinicollis*, De Haan, Orth. Orient., p. 131.*Dairus japetus*, ♀, G. R. Gray, Ent. Austr., i., pl. v., fig. 1; Syn. Phasm., p. 40.Burm., Handb. d. Ent., ii., 2, p. 580 (*Cyphocrania japetus*).*Hab.* Melville Island, N. Territory.*A. osiris*, G. R. Gray.Westwood, *loc. cit.*, p. 115.*Diura osiris*, G. R. Gray, Trans. Ent. Soc., i., 1836, p. 46; Syn. Phasm., p. 40.*Hab.* Australia.*A. acheron*, G. R. Gray.Westwood, *loc. cit.*, p. 115.*Diura acheron*, G. R. Gray, Trans. Ent. Soc., i., 1836, p. 46; Syn. Phasm., p. 40.*Hab.* Australia.*A. macleaii*, G. R. Gray.Westwood, *loc. cit.*, p. 115.*Ctenomorpha macleaii*, G. R. Gray, Syn. Phasm., p. 41.*Hab.* Australia.*A. tessalata*, Curtiss.Westwood, *loc. cit.*, pp. 115-116. pl. xxxv., figs. 1, 1a., 1b. ♂, figs. 2, 2a. ♀.*Ctenomorpha tessalata*, ♂, Curtiss MS.

G. R. Gray, Syn. Phasm., p. 44.

Hab. Moreton Bay, Queensland.*A. salmacis*, Westwood, *loc. cit.*, p. 116, pl. xxxvii., figs. 2, 2a.*Hab.* Northern Australia.*A. violescens*, Leach.Westwood, *loc. cit.*, p. 116.

MacCoy, Prodr. Z. Vict., Melbourne, 1885, dec. viii., pl. lxxix., Insects, pp. 33-34.

Phasma violescens, ♂, Leach, Zool. Misc., i., pl. ix.G. R. Gray, Ent. Austr., pl. vi., fig. 1 (*Diura v.*); Syn. Phasm., p. 40 (*Acrophylla v.*)Burm., Handb. d. Ent., ii., 2, 580 (*Cyphocrania v.*)*Diura roseipennis*, ♀, G. R. Gray, Ent. Austr., i., pl. vii., fig. 1; Syn. Phasm., p. 41 (*Acrophylla v.*)Burm., *loc. cit.* (*Cyphocrania v.*, ♀)*Phasma (Cyphocrania c.) roseipennis*, De Haan, Orth. Orient., p. 130.

A. (Diura) virginea, Stål, *Recensio Orthopterorum*, Stockholm, 1875, p. 84.

Hab. Cape York, Queensland.

Genus *Clemacantha*, *Rainbow*.

C. regale, *Rainbow*, *ante*, pp. 34-35, pl. ix., figs. 1, 2, 3.

Hab. N. S. Wales and Queensland.

Genus *Vasilissa*, *Kirby*.

V. walkeri, *Kirby*, *Trans. Lin. Soc. Lond.*, (2) vi., 6, pp. 468-469.

Hab. Queen's Islet, N.W. Australia.

Genus *Podacanthus*, *G. R. Gray*.

P. typhon, *G. R. Gray*, *Ent. Austr.*, i., pl. ii., fig. 1; *Syn. Phasm.*, p. 32.

Servielle, *H. N. Orth.*, p. 230.

Brum., *Handb. d. Ent.*, ii., 2, p. 581.

Westwood, *loc. cit.*, p. 117.

MacCoy, *Prodr. Z. Vict.*, dec. viii., *Insects*, pp. 35-36, pl. lxxx, figs. 1, 1a., 1b., 1c.

Var. maris, *P. unicolor (totus viridis)* *Charpentier*, *Orthop. Descr.*, pl. lvi

Hab. Sydney and Victoria.

P. viridi-roseus, *Curtis*, MS.

G. R. Gray, *Syn. Phasm.*, p. 43 (*Podacanthus v.*)

Westwood, *loc. cit.*, p. 117.

Hab. In Australia, Moreton Bay.

P. wilkinsoni, *Macleay*, *Proc. Lin. Soc.*, N.S.W., vi., p. 538.

Hab. Westmoreland, N.S.W.

Genus *Necroscia*, *Servielle*.

N. carterus, *Westwood*, *loc. cit.*, p. 138, pl. xv., figs. 5, 5a., 5b.

Hab. Australia.

N. sarpedon, *Westwood*, *loc. cit.*, pp. 139-140, pl. xvi., figs. 1, 1a. ♀; pl. xxxii., fig. 5.

Hab. North Australia.

N. annulipes, *Curtis*, MS.

G. R. Gray, *Syn. Phasm.*, p. 37 (*Platycrana ann.*)

Westwood, *loc. cit.*, p. 150.

Phasma (Necroscia) annulipes, *De Haan*, *Orth. Orient.*, pp. 118-121.

Hab. East Indies; Malacca; Australia.

*Genus Tropidoderus, G. R. Gray.**T. childrenii, G. R. Gray.*

Diura typhceus, ♂, G. R. Gray, Ent. Austr., i., pl. vi.,
fig. 2; Syn. Phasm., p. 40.

Trigonoderus childrenii, G. R. Gray, Ent. Austr., i., p. 26,
pl. iii., fig. 1.

Tropidoderus childrenii, G. R. Gray, Syn. Phasm., p. 31.

Burm., Handb. d. Ent., ii., 2, p. 589.

De Haan, Orth. Orient., p. 125.

Westwood, *loc. cit.*, pp. 165-166.

Hab. Australia.

T. iodomus, MacCoy, Prodr. Z. Vict., Melbourne, 1885, dec. vii.,
Insects, pp. 33-35, pls. lxix.-lxx., figs. 2 and 3.

Hab. Victoria.

T. rhodomus, MacCoy, *loc. cit.*, pp. 35-37, pls. lxix.-lxx., figs. 1,
1a., 1b., 1c.

Hab. Inglewood, Victoria.

T. decipiens, Rainbow, *ante*, pp. 36-37, pl. x., figs. 1, 2, 3, 4.

Hab. Gordon and Ashfield, near Sydney.

Genus Lysicles, Stal.

L. hippolytus, Stal, CR. Ent. Belg., xx., p. 65.

Hab. Peak Downs, Queensland.

*Genus Extatosoma, G. R. Gray.**E. tiaratum*, Macleay.

E. hopei, G. R. Gray, Ent. Austr., i., pl. viii., fig. 1; Syn.
Phasm., p. 29 (*Ectatosoma h.*) Seville, H. N. Orth., p.
285.

Westwood, *loc. cit.*, pp. 170-171.

Phasma tiaratum, Macleay, in King's Survey of Australia,
App. ii., p. 455, t. B., figs. 3, 4 ♀.

G. R. Gray, Ent. Austr., i., pl. viii., fig. 2; Syn. Phasm., p.
29 (*Ectatos. t.*)

Seville, H. N. Orth., p. 286.

Ectatosoma tiaratum, ♂ et ♀, Burm., Handb. d. Ent., ii., 2,
p. 576.

De Haan, Orth. Orient., p. 110, pl. x., fig. 2 ♀.

Hab. Australia, Tasmania, et New Guinea.

E. bufonium, Westwood, Thes. Ent. Oxon., p. 174, pl. xxxii., fig. 2.

Hab. Australia.

Genus Cladoxerus, Kaup.

C. insignis, Kaup, B.E Z., p. 39.

Hab. Australia.

*Genus Ctenomorpha, Gray.**C. nigro-varia*, Stål, Recensio Orthopterorum, p. 83.*Hab.* Cape York, Queensland.*Genus Vetilia, Stål.**V. eurymedon*, Stål, C.R. Ent. Belg., xx., p. lxiii.*Hab.* Cape York, Rockhampton, Queensland.

DESCRIPTIONS OF NEW LAND SHELLS.

By C. HEDLEY, Conchologist.

(Plate xi.)

PUPISOMA CIRCUMLITUM, n. sp.

(Plate xi., figs. 1, 2, 3.)

Shell globose conical, perforate, thin, translucent. Colour an uniform pale tawny olive. Whorls three and a-half, well rounded; suture impressed. Sculpture,—everywhere the whorls are crossed by fine, close, raised hair lines; at irregular intervals these tend to rise into lamellæ, which latter can scarcely be detected in profile on the periphery; the embryonic shell is similarly sculptured, no trace of spiral sculpture can be seen; a break at the completion of the second whorl suggests that here ends the nepionic shell. Umbilicus minute, funnel shaped, showing only the preceding whorl. Aperture very oblique, ovate lunate, lip simple, columellar margin broadly reflexed over the umbilicus; callus thin, transparent. Height, 1.9; breadth, 2 mm.

Type.—Australian Museum C. 3459.*Hab.*—Received through Mr. C. E. Beddome from Dr. May, who gathered it on trees at Bundaberg, Queensland; also collected on orange trees near Grafton, N.S.W., by myself.

This snail conceals itself by plastering the shell over with grains of earth, etc., entangled in mucus. The device reminded me of the European *Balea perversa*, which adopts the same habit in similar situations. Occasional abrasions seem to show that the colour resides in a very thin epidermis.

I have not the advantage of being autoptically acquainted with any of the known *Pupisoma*, but the novelty corresponds so closely